

February 7, 2017

Mr. Dennis Curran
FGS/CMT
136 Maine Ave
Bangor, ME 04401

RE: Katahdin Lab Number: SK0729
Project ID: Highlander Center
Project Manager: Ms. Kristen Schultz
Sample Receipt Date(s): January 27, 2017

Dear Mr. Curran:

Please find enclosed the following information:

- * Report of Analysis (Analytical and/or Field)
- * Quality Control Data Summary
- * Chain of Custody (COC)
- * Login Report

A copy of the Chain of Custody is included in the paginated report. The original COC is attached as an addendum to this report.

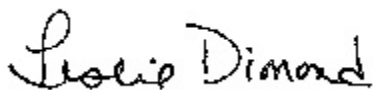
Should you have any questions or comments concerning this Report of Analysis, please do not hesitate to contact the project manager listed above. The results contained in this report relate only to the submitted samples. This cover letter is an integral part of the ROA.

We certify that the test results provided in this report meet all the requirements of the NELAC standards unless otherwise noted in an attached technical narrative or in the Report of Analysis.

We appreciate your continued use of our laboratory and look forward to working with you in the future. The following signature indicates technical review and acceptance of the data.

Please go to <http://www.katahdinlab.com/cert.html> for copies of Katahdin Analytical Services Inc. current certificates and analyte lists.

Sincerely,
KATAHDIN ANALYTICAL SERVICES



Authorized Signature

02/07/2017

Date

KATAHDIN ANALYTICAL SERVICES - ORGANIC DATA QUALIFIERS

The sampled date indicated on the attached Report(s) of Analysis (ROA) is the date for which a grab sample was collected or the date for which a composite sample was completed. Beginning and start times for composite samples can be found on the Chain-of-Custody.

- U Indicates the compound was analyzed for but not detected above the specified level. This level may be the Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client.
- Note: All results reported as "U" MDL have a 50% rate for false negatives compared to those results reported as "U" PQL, "U" LOQ or "U" LOD, where the rate of false negatives is <1%.
- * Compound recovery or percent RPD (relative percent difference) was outside of quality control limits.
- D Indicates the result was obtained from analysis of a diluted sample. Surrogate recoveries may not be calculable.
- E Estimated value. This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.
- J Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Practical Quantitation Level (PQL) (also called Limit of Quantitation (LOQ)), but above the Method Detection Limit (MDL).
- or
- J Used for Pesticides, PCBs, Herbicides, Formaldehyde, Explosives and Method 504.1 analytes when there is a greater than 40% difference for detected concentrations between the two GC columns.
- B Indicates the analyte was detected in the laboratory method blank analyzed concurrently with the sample.
- C Indicates that the flagged compound did not meet DoD criteria in the corresponding daily calibration verification (CV).
- L Indicates that the flagged compound did not meet DoD criteria in the corresponding Laboratory Control Sample (LCS) and/or Laboratory Control Sample Duplicate (LCSD) prepared and/or analyzed concurrently with the sample.
- M Indicates that the flagged compound did not meet DoD criteria in the Matrix Spike and/or Matrix Spike Duplicate prepared and/or analyzed concurrently with the native sample.
- N Presumptive evidence of a compound based on a mass spectral library search.
- A Indicates that a tentatively identified compound is a suspected aldol-condensation product.
- P Used for Pesticide/Aroclor analyte when there is a greater than 25% difference for detected concentrations between the two GC columns. (for CLP methods only).

Report of Analytical Results

Client: FGS/CMT
Lab ID: SK0729-1RA
Client ID: 24HR IA ID#1
Project: Highlander Center
SDG: SK0729
Lab File ID: A3797.D

Sample Date: 24-JAN-17
Received Date: 27-JAN-17
Extract Date: 01-FEB-17
Extracted By: AAB
Extraction Method: TO 15
Lab Prep Batch: WG199288

Analysis Date: 01-FEB-17
Analyst: AAB
Analysis Method: EPA TO-15
Matrix: AR
% Solids: NA
Report Date: 03-FEB-17

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL	ADJ MDL
Vinyl Chloride	U	0.11	ug/m3	1	.5	1.3	0.11
1,1-Dichloroethene	U	0.13	ug/m3	1	.5	2.0	0.13
trans-1,2-Dichloroethene	U	0.13	ug/m3	1	.5	2.0	0.13
1,1-Dichloroethane	U	0.097	ug/m3	1	.5	2.0	0.097
cis-1,2-Dichloroethene	U	0.17	ug/m3	1	.5	2.0	0.17
1,2-Dichloroethane	U	0.10	ug/m3	1	.5	2.0	0.10
1,1,1-Trichloroethane	U	0.16	ug/m3	1	.5	2.7	0.16
Trichloroethene	U	0.091	ug/m3	1	.5	2.7	0.091
Tetrachloroethene		30.	ug/m3	1	.5	3.4	0.26

Report of Analytical Results

Client: FGS/CMT
Lab ID: SK0729-2DL3
Client ID: 20MIN SVB SLAB SS#1
Project: Highlander Center
SDG: SK0729
Lab File ID: A3799.D

Sample Date: 24-JAN-17
Received Date: 27-JAN-17
Extract Date: 01-FEB-17
Extracted By: AAB
Extraction Method: TO 15
Lab Prep Batch: WG199288

Analysis Date: 01-FEB-17
Analyst: AAB
Analysis Method: EPA TO-15
Matrix: AR
% Solids: NA
Report Date: 03-FEB-17

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL	ADJ MDL
Vinyl Chloride	U	8.1	ug/m3	3.7863	.5	97.	8.1
1,1-Dichloroethene	U	9.6	ug/m3	3.7863	.5	150	9.6
trans-1,2-Dichloroethene	U	9.6	ug/m3	3.7863	.5	150	9.6
1,1-Dichloroethane	U	7.4	ug/m3	3.7863	.5	150	7.4
cis-1,2-Dichloroethene	U	13.	ug/m3	3.7863	.5	150	13.
1,2-Dichloroethane	U	8.0	ug/m3	3.7863	.5	150	8.0
1,1,1-Trichloroethane	U	12.	ug/m3	3.7863	.5	210	12.
Trichloroethene	J	13.	ug/m3	3.7863	.5	200	6.9
Tetrachloroethene		6400	ug/m3	3.7863	.5	260	20.

Report of Analytical Results

Client: FGS/CMT
Lab ID: SK0729-2DL4
Client ID: 20MIN SVB SLAB SS#1
Project: Highlander Center
SDG: SK0729
Lab File ID: A3800.D

Sample Date: 24-JAN-17
Received Date: 27-JAN-17
Extract Date: 01-FEB-17
Extracted By: AAB
Extraction Method: TO 15
Lab Prep Batch: WG199288

Analysis Date: 01-FEB-17
Analyst: AAB
Analysis Method: EPA TO-15
Matrix: AR
% Solids: NA
Report Date: 03-FEB-17

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL	ADJ MDL
Vinyl Chloride	U	0.20	ug/m3	3.7863	.5	2.4	0.20
1,1-Dichloroethene	U	0.24	ug/m3	3.7863	.5	3.8	0.24
trans-1,2-Dichloroethene	U	0.24	ug/m3	3.7863	.5	3.8	0.24
1,1-Dichloroethane	U	0.18	ug/m3	3.7863	.5	3.8	0.18
cis-1,2-Dichloroethene	U	0.32	ug/m3	3.7863	.5	3.8	0.32
1,2-Dichloroethane	U	0.20	ug/m3	3.7863	.5	3.8	0.20
1,1,1-Trichloroethane	U	0.30	ug/m3	3.7863	.5	5.2	0.30
Trichloroethene		12.	ug/m3	3.7863	.5	5.1	0.17
Tetrachloroethene	E	1100	ug/m3	3.7863	.5	6.4	0.50

Form 4
Method Blank Summary - VOA

Lab Name : Katahdin Analytical Services
Project : Highlander Center
Lab File ID : A3796.D
Instrument ID : AIR1
Heated Purge : No

SDG : SK0729
Lab Sample ID : WG199288-2
Date Analyzed : 01-FEB-17
Time Analyzed : 11:05

This Method Blank applies to the following samples, LCS, MS and MSD:

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
Laboratory Control S	WG199288-1	A3794.D	02/01/17	09:01
24HR IA ID#1	SK0729-1RA	A3797.D	02/01/17	11:50
20MIN SVB SLAB SS#1	SK0729-2DL3	A3799.D	02/01/17	14:01
20MIN SVB SLAB SS#1	SK0729-2DL4	A3800.D	02/01/17	15:46

Report of Analytical Results

Client:
Lab ID: WG199288-2
Client ID: Method Blank Sample
Project:
SDG: SK0729
Lab File ID: A3796.D

Sample Date:
Received Date:
Extract Date: 01-FEB-17
Extracted By: AAB
Extraction Method: TO 15
Lab Prep Batch: WG199288

Analysis Date: 01-FEB-17
Analyst: AAB
Analysis Method: EPA TO-15
Matrix: AR
% Solids: NA
Report Date: 03-FEB-17

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL	ADJ MDL
Vinyl Chloride	U	0.11	ug/m3	1	.5	1.3	0.11
1,1-Dichloroethene	U	0.13	ug/m3	1	.5	2.0	0.13
trans-1,2-Dichloroethene	U	0.13	ug/m3	1	.5	2.0	0.13
1,1-Dichloroethane	U	0.097	ug/m3	1	.5	2.0	0.097
cis-1,2-Dichloroethene	U	0.17	ug/m3	1	.5	2.0	0.17
1,2-Dichloroethane	U	0.10	ug/m3	1	.5	2.0	0.10
1,1,1-Trichloroethane	U	0.16	ug/m3	1	.5	2.7	0.16
Trichloroethene	U	0.091	ug/m3	1	.5	2.7	0.091
Tetrachloroethene	U	0.26	ug/m3	1	.5	3.4	0.26

LCS Recovery Report

Client:
Lab ID: WG199288-1
Client ID: LCS
Project:
SDG: SK0729
LCS File ID: A3794.D

Sample Date:
Received Date:
Extract Date: 01-FEB-17
Extracted By: AAB
Extraction Method: TO 15
Lab Prep Batch: WG199288

Analysis Date: 01-FEB-17
Analyst: AAB
Analysis Method: EPA TO-15
Matrix: AR
% Solids: NA
Report Date: 03-FEB-17

Compound	Recovery (%)	Conc Added	Conc Recovered	Conc Units	Limits
Vinyl Chloride	108.	5.00	5.40	ppb/v	70-130
1,1-Dichloroethene	98.0	5.00	4.90	ppb/v	70-130
trans-1,2-Dichloroethene	96.0	5.00	4.80	ppb/v	70-130
1,1-Dichloroethane	102.	5.00	5.10	ppb/v	70-130
cis-1,2-Dichloroethene	100.	5.00	5.00	ppb/v	70-130
1,2-Dichloroethane	114.	5.00	5.70	ppb/v	70-130
1,1,1-Trichloroethane	110.	5.00	5.50	ppb/v	70-130
Trichloroethene	110.	5.00	5.50	ppb/v	70-130
Tetrachloroethene	92.0	5.00	4.60	ppb/v	70-130

Client: <u>FGS/CMT</u>	KAS PM:	Sampled By: <u>Client</u>
Project:	KIMS Entry By: <u>SO</u>	Delivered By: <u>KAS</u>
KAS Work Order#: <u>SK0729</u>	KIMS Review By: <u>SO</u>	Received By: <u>SO</u>
SDG #:	Cooler: _____ of _____	Date/Time Rec.: <u>1/27/17 1430</u>

Receipt Criteria	Y	N	EX*	NA	Comments and/or Resolution
1. Custody seals present / intact?				✓	
2. Chain of Custody present in cooler?	✓				
3. Chain of Custody signed by client?	✓				
4. Chain of Custody matches samples?	✓				
5. Temperature Blanks present? If not, take temperature of any sample w/ IR gun.				✓	Temp (°C): _____
Samples received at <6 °C w/o freezing?				✓	Note: Not required for metals (except Hg soil) analysis.
Ice packs or ice present?				✓	The lack of ice or ice packs (i.e. no attempt to begin cooling process) or insufficient ice may not meet certain regulatory requirements and may invalidate certain data.
If yes, was there sufficient ice to meet temperature requirements?				✓	
If temp. out, has the cooling process begun (i.e. ice or packs present) and sample collection times <6hrs., but samples are not yet cool?				✓	Note: No cooling process required for metals (except Hg soil) analysis.
6. Volatiles:				✓	
Aqueous: No bubble larger than a pea?				✓	
Soil/Sediment:				✓	
Received in airtight container?				✓	
Received in methanol?				✓	
Methanol covering soil?				✓	
D.I. Water - Received within 48 hour HT?				✓	
Air: Refer to KAS COC for canister/flow controller requirements.				✓ if air included	
7. Trip Blank present in cooler?				✓	
8. Proper sample containers and volume?	✓				
9. Samples within hold time upon receipt?	✓				
10. Aqueous samples properly preserved?				✓	
Metals, COD, NH3, TKN, O/G, phenol, TPO4, N+N, TOC, DRO, TPH - pH <2				✓	
Sulfide - >9				✓	
Cyanide - pH >12				✓	
* Log-In Notes to Exceptions: document any problems with samples or discrepancies or pH adjustments.					



Katahdin Analytical Services
Login Chain of Custody Report (Ino1)

Page: 1 of 1

Jan. 27, 2017
03:22 PM

Login Number: SK0729

Quote/Incoming: FGSAIR

Account: FGS001
FGS/CMT

NoWeb

Login Information:

ANALYSIS INSTRUCTIONS : ND to MDL for TO 15
CHECK NO. :
CLIENT PO# :
CLIENT PROJECT MANAGE :
CONTRACT :
COOLER TEMPERATURE : n/a
DELIVERY SERVICES : KAS
EDD FORMAT : KAS064QC-XLS
LOGIN INITIALS : SO
PM : KSS
PROJECT NAME : Highlander Center
QC LEVEL : II+
REGULATORY LIST :
REPORT INSTRUCTIONS : email pdf and invoice to dennis, no HC, merge
results for EDD, email invoice also to
lcall@fgscmt.com
SDG ID :
SDG STATUS :

Project: FGSAIR
Air Testing

Primary Report Address:

Dennis Curran
FGS/CMT
136 Maine Ave

Bangor, ME 04401

dcurran@fgscmt.com

Primary Invoice Address:

Sharon Cormier
FGS/CMT
136 Maine Ave

Bangor, ME 04401

Report CC Addresses:

Invoice CC Addresses:

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SK0729-1	24HR IA ID#1	24-JAN-17 11:32	27-JAN-17			08-FEB-17	
<i>Matrix</i>	<i>Product</i>	<i>Hold Date (shortest)</i>	<i>Bottle Type</i>		<i>Bottle Count</i>		<i>Comments</i>
Air	S CANISTER_RENTAL						
Air	S TO-15-S	23-FEB-17	Canister				
SK0729-2	20MIN SVB SLAB SS#1	24-JAN-17 12:14	27-JAN-17			08-FEB-17	
<i>Matrix</i>	<i>Product</i>	<i>Hold Date (shortest)</i>	<i>Bottle Type</i>		<i>Bottle Count</i>		<i>Comments</i>
Air	S CANISTER_RENTAL						
Air	S TO-15-S	23-FEB-17	Canister				

Total Samples: 2

Total Analyses: 4